

## **MPS SYSTEM IMPROVEMENTS**

### **ABSTRACT**

A system and method for precisely controlling the delivery of two fluids to a specific organ or region of a patient when one of the fluids breaks down the other fluid. The fluids are  
5 separately metered and are maintained in separate delivery lines until a point very near the target organ, preferably within twelve inches of the delivery site. In an exemplary embodiment, blood and a cardioplegic agent are supplied to the heart via the coronary arteries or coronary veins while adenosine, which provides a powerful protective influence on the myocardial cells during ischemia, is provided in a separate delivery line to prevent the breakdown of adenosine, which  
10 has a half-life of 13 seconds in the blood.